POPQAE 43(4) 443–600 (1979)
ISSN 0033-362X

Public Opinion Quarterly

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WINTER 1979

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Volume #43, 4 issues (1979)

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Mail orders and direct subscription information to:
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Single copy and back volume information furnished upon written request. Claims for missing issues can be honored only up to three months from date of issue. Indexed by Public Affairs Information Services, Social Sciences Index, United States Political Science Documents, and Combined Retrospective Index Sets (CRIS).

PUBLICATION NUMBER 449380

Editorial Office: Journalism Building, Columbia University 116th Street and Broadway, New York, New York 10027
Business, Subscriptions, Back Issues: Elsevier North Holland, Inc. 52 Vanderbilt Avenue New York, New York 10017
AAPOR: Post Office Box 17, Princeton, New Jersey 08540
Subscribers and members of AAPOR are urged to notify the Subscription Office as soon as possible of changes of address. In doing so, give the old as well as the new address.

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The Subjective Meaning of Social Class Identification in the United States

MARY R. JACKMAN

TERMS such as *poor*, *working class*, *middle class*, *upper middle class*, and *upper class* are routinely used to make analytic distinctions in both journalistic and scholarly literature. Concern with these distinctions is reflected in the repeated use of items in public opinion surveys that ask Americans to identify with a social class. However, some analysts have argued that social class terms have no intrinsic

Abstract This paper assesses the significance and meaning to Americans of five common social class terms: poor, working class, middle class, upper middle class, and upper class. After respondents in a national survey had been asked with which of these five classes they identified, they were asked how they would assign various occupations to the classes and what criteria they used to define membership in their own class. Most respondents were able to assign a variety of occupations to social classes with little or no hesitation, and there was high agreement about the class location of occupations. The prevailing class assignments of those occupations reflect hierarchical socioeconomic characteristics (such as income, job authority, education, and skill) rather than a qualitative blue-collar/white-collar distinction. Finally, the criteria that respondents selected as important in defining the social class with which they identify suggest that class is at least as much a social as an economic phenomenon in the United States.

Mary R. Jackman is Associate Professor of Sociology and Faculty Associate in the Survey Research Center at the University of Michigan. This research was supported by grants from the National Institute for Mental Health (MH-26433) and the National Science Foundation (SOC 75-00405). The author is indebted to Mary Scheuer Senter for her invaluable help in the preparation of the questionnaire and in all subsequent stages of the research from data management to commenting on early drafts of the paper. Suzanne Purcell and Leslie Eveland also provided indispensable assistance with data management and analysis. Finally, thanks go to several people for their helpful comments on earlier drafts of this paper: Richard Centers, William A. Gamson, Gerald Gurin, Joan Huber, Robert W. Jackman, and Howard Schuman.

Public Opinion Quarterly © 1979 by The Trustees of Columbia University
Published by Elsevier North-Holland, Inc. 0033-362X/79/0043-443$1.75

meaning for many or most Americans (e.g., Case, 1955; Haer, 1957). Such critics have contended that the common reliance on closed-ended class identification items "puts words in the respondent's mouth" and thus masks widespread confusion about and disinterest in class (e.g., Gross, 1953; Haer, 1957). The importance of this issue is underscored by the increasing prominence of the more general view that social class is of dwindling significance in advanced industrial societies (e.g., Rosenberg, 1953; Wilensky, 1966; Nisbet, 1970; Bell, 1973). Despite these arguments about the diminishing salience of class, survey analysts have continued to use class identification items without addressing the meaning of the items themselves. Indeed, Centers (1949) remains the only direct inquiry into how Americans interpret standard class terms, and his classic study is by now 30 years old.

This paper seeks to expand and update Centers' analysis by investigating two key aspects of the way Americans interpret some commonly used social class terms—*poor*, *working class*, *middle class*, *upper middle class*, and *upper class*.[1] In a national survey, respondents were probed about their answers to a closed-ended class identification item with questions on their conceptions of how occupations are affiliated with the classes and on their broader definitions of criteria for membership in their own social class. These data address important issues about the subjective meaning of Americans' social class identification on two levels: the degree of clarity or confusion in popular conceptions of standard social class terms, and the substance of the public's understanding of these class terms.

Occupation has traditionally been regarded as a key element of socioeconomic status: an evaluation of how Americans assign occupations to classes constitutes a basic step in assessing their understanding of social class terms. If the terms used in class identification questions are as meaningless to the mass public as some investigators have argued, we would expect respondents to waver a good deal in trying to assign occupations to classes and to express widely varying ideas about the class location of occupations. On the other hand, a ready consensus about the social class placement of different occupations would suggest that class is relatively well defined in the public's awareness. The data in this paper suggest that portrayals of social class as a vague, irrelevant, distant concept to the American public are off the mark: substantial agreement exists about the class location

[1] Probing into respondents' interpretations of response options in closed-ended questionnaire items has been recommended by Schuman (1966) as a general strategy whenever there is doubt about the validity and meaning of survey responses.

of various occupations. However, the amount of agreement varies across occupations, and this variation provides insight into those areas of the occupational structure that are less clearly defined.

Beyond the basic issue of whether social class terms have any common meaning lies the question of the form that such meaning takes. This paper probes that form in two ways. First, the data on the class assignment of occupations are re-examined to assess the rules that appear to underly the way occupations are assigned to classes. Particularly important here is the degree of popular sensitivity to the qualitative blue-collar/white-collar distinction versus socioeconomic hierarchies based on income, status, job authority, skill, or level of education. Theorists of "postindustrial society" have argued that the relative increase in the size of the white-collar sector implies an expanding middle class and a decline in class divisions (e.g., Bell, 1973). This argument would be weakened, however, if people were found to be more sensitive to socioeconomic hierarchies other than the blue-collar/white-collar dichotomy, since it is among lower level white-collar jobs that the expansion has been greatest. In fact, Centers (1949) argued that such routine white-collar work was becoming "proletarianized." The data in this paper suggest that the blue-collar/white-collar criterion is of limited significance in the way occupations are sorted into classes: the prevailing pattern suggests more attention to alternative socioeconomic hierarchies.

The second way we probe Americans' interpretations of their class identification is by examining the kinds of criteria they use in defining membership in their own social class. The central issue here is whether class membership is seen strictly in terms of shared objective characteristics, such as type of occupation or income, or whether it extends to encompass cultural/expressive characteristics, such as shared lifestyle or beliefs and feelings. The former pattern would suggest that class is defined somewhat narrowly, conforming more to the Weberian notion of class as an economic category only (Weber, 1946). However, the latter conception would make class membership a more significant *social* affiliation, suggesting that class incorporates the Weberian description of a status group. It would also be more consistent with the Marxist and interest-group conception of class as both a social and an economic unit (Centers, 1949; Marx, 1964). The data in this paper suggest that it is the latter conception that better reflects Americans' interpretations of their class identification.

Centers' survey of American white males, conducted in 1945, provides important baseline data on the subjective meaning of social class identification. Comparison with data from the present study, gathered 30 years later, is complicated by differences in the samples

(the present study does not exclude women or blacks) and in the wording of the items (the present items are an extension of those used by Centers). However, some interesting comparisons between the two time points are possible. After briefly describing the data base in the present study, we turn to the questions of whether, and how, Americans associate occupations with classes, and their broader conceptions of the important factors in determining membership in their own subjective social class.

Data

The data for this study come from a national probability survey of adults aged eighteen and over living in the contiguous United States. The survey was conducted in the fall of 1975 by the Survey Research Center of the Institute for Social Research in Ann Arbor, Michigan.[2] The study included personal interviews with 1,914 respondents.

The series of questions about class that are the subject of this paper appeared early in the interview schedule, and were introduced by a class identification item:

> People talk about social classes such as the poor, the working class, the middle class, the upper middle class, and the upper class. Which of these classes would you say you belong to?

The class terms in this question are all commonly used in both journalistic and scholarly literature. They also conform with those most generally used in class identification items, with the exception of the term *poor* (rather than *lower class*) for the lowest category. While the term *lower class* has been frequently used in class identification items, it is rarely used in other discussions of class, and its popular usage is more likely to be as a pejorative adjective than as a label for a socioeconomic group. On the other hand, the poor constitute a socioeconomic category that is frequently discussed and is the object of long-standing public policy concern.

All but 3.3 percent of the respondents identified with one of the five classes:[3] 7.6 percent identified with the poor, 36.6 percent with the

[2] The data were collected as part of a larger study on intergroup attitudes and group consciousness among race, gender, and social class groups. The response rate for the survey was just under 70 percent.

[3] The response rate of the 3.3 percent who did not identify with one of the classes can be broken down as follows: 1.3 percent gave other responses, 0.5 percent denied the existence of class, 1.5 percent said "don't know," and 0.2 percent were not ascertained. In response to the question, "Was there any indication that R misunderstood or had problems understanding the class terms in the class identification question?" interviewers indicated that only a few respondents (14 percent) had any problems.

working class, 43.3 percent with the middle class, 8.2 percent with the upper middle class, and 1.0 percent with the upper class. The only notable deviation in this distribution of responses from those usually obtained with other closed-ended class identification items is the 7.6 percent identifying with the poor, rather than the 1 to 3 percent who generally identify with the lower class.[4] This doubtless reflects the perception of the term *poor* as both less odious and more relevant than *lower class*. The subjective salience of people's responses to this class identification question may be judged by the fact that one-half of the sample said they felt "very strongly" about their class identification, and almost 80 percent felt at least somewhat strongly.[5]

In a rudimentary model linking class identification to respondent's education, head of household's socioeconomic status, and family income, regression estimates are comparable to those obtained in earlier studies (e.g., Jackman and Jackman, 1973), and the three variables account for approximately one-quarter of the variance in class identification. The average objective status characteristics of the classes (respondent's educational attainment, head of household's socioeconomic status, and family income) increase steadily from the poor through the upper middle class, but dip for the upper class. This underscores the unreliability of any inferences based on the upper-class identifiers (who constitute only 19 individuals). At the same time, it suggests that the measure of class identification in this survey enjoys a relationship with objective status that is comparable to that found in other studies. We turn now to the question of the subjective meaning of the class terms used in this item.

Analysis

PERCEIVED CLASS LOCATION OF OCCUPATIONS: AGREEMENT OR DISAGREEMENT?

Occupation is of central significance to social class. The readiness with which people assign occupations to classes and the amount of agreement they express in the way they do it bear fundamentally on

[4] For example, the proportions identifying with the lower, working, middle, upper middle, and upper classes are 2.3 percent, 34.3 percent, 44 percent, 16.6 percent, and 2.2 percent, respectively, in one 1964 NORC survey (Hodge and Treiman, 1968); and 2.7 percent, 37.0 percent, 45.3 percent, 10.8 percent, and 2.3 percent, respectively, in another 1964 NORC survey (Jackman and Jackman, 1973:582).

[5] These results are similar to those reported by Centers (1956) for a representative sample of Americans interviewed in 1950; if anything, feelings of class identity appear just slightly stronger in the present data. Centers reported that 34 percent expressed "very strong" feelings and 37 percent "fairly strong" feelings about their class identification.

the meaningfulness and salience of class among the American public. A wide inability to associate occupations with classes or a broad divergence in views of the class location of various occupations would seriously undercut the importance of class as an element in the public's consciousness. This would, of course, be consistent with the prominent argument that class is of little significance or relevance to most Americans (e.g., Rosenberg, 1953; Case, 1955; Haer, 1957; Wilensky, 1966; Nisbet, 1970; Bell, 1973). However, the data in this study do not support such an argument. Instead, they suggest that social class is a familiar concept to most Americans, and that significant agreement exists on the basic issue of how occupations are associated with classes.

Centers (1949) sought to isolate people's occupational definitions of their own subjective class by asking respondents to select from a list of 11 occupation groups those that they thought belonged to the class with which they identified. In the present study, this list was extended by giving respondents an "occupation-class sort board," with 12 occupation cards to be sorted among the 5 classes. This procedure provides data not only on respondents' perceptions of the occupations belonging to their own class, but also on their images of the match between occupations and classes throughout the class structure.

The occupation-class sort board was introduced by the interviewer as follows:

> There is sometimes disagreement about what social classes people with different occupations belong to. Each of these cards has a group of occupations on it. Please look at this board with a slot for each of the social classes we have been talking about, and sort each card into the slot you think it belongs to.

In constructing the 12 occupation cards, the main concern was to represent the major occupational categories of the civilian labor force with occupational titles that would be widely recognized by a cross-sectional sample of Americans. The occupations on the 12 cards are listed in Table 1. They were not presented to the respondent in any fixed order, but they represent a broad range of prestige, income, skill, and job authority—from "migrant farm workers" to "corporation directors and presidents." In addition, different cards represent the blue-collar/white-collar distinction (e.g., "assembly-line factory workers" and "workers in offices and stores"), as well as the professional/business distinction (e.g., "doctors and lawyers" and "corporation directors and presidents").

Most respondents completed the occupation-class sort board with little or no hesitation, and very few "don't know" responses were

Table 1. Social Class Assignment of Occupations, with Predominant Choices Italicized

	Social Class Assigned						
Occupations	*Poor*	*Working*	*Middle*	*Upper Middle*	*Upper*	*Don't Know*	*Base N*
Migrant farm workers	*73.3%*	21.7%	2.2%	0.5%	0.5%	1.7%	1,846
Janitors	25.2	*66.6*	6.1	0.5	0.2	1.4	1,840
Assembly-line factory workers	5.0	*75.1*	16.0	1.7	0.7	1.6	1,862
Workers in offices and stores	1.5	*59.9*	33.4	3.4	0.8	1.0	1,843
Plumbers and carpenters	1.1	*43.9*	*40.0*	11.7	1.9	1.3	1,853
Foremen in factories	0.6	*39.5*	*47.7*	9.7	1.0	1.5	1,857
Schoolteachers and social workers	0.4	18.7	*59.7*	17.4	2.5	1.2	1,858
Small businessmen	1.7	17.6	*60.5*	17.7	1.2	1.3	1,859
Supervisors in offices and stores	0.1	16.7	*56.2*	22.5	3.2	1.3	1,853
Business executives and managers	0.1	3.0	13.8	*55.8*	25.7	1.6	1,861
Doctors and lawyers	0.0	1.8	3.9	35.6	*57.1*	1.7	1,866
Corporation directors and presidents	0.4	1.3	3.0	21.5	*71.8*	1.9	1,852

elicited by any of the occupations. In a structured question, interviewers were asked to report how much the respondent hesitated on the sort-board task: they were instructed to look for such signs of uncertainty as switching cards from one slot to another or taking a while to decide where to place each card. According to the interviewers' observations, fewer than 7 percent of the respondents hesitated "a lot" on the task, while 11 percent hesitated "quite a bit"; over 50 percent did not hesitate at all, and an additional 31 percent hesitated no more than "a little." The small proportion of "don't know" responses (less than 2 percent for any occupation) is consistent with the interviewers' observations.[6]

Beyond the issue of the ease and familiarity with which Americans associate occupations with classes, the data in Table 1 display a striking amount of popular agreement about how occupations are associated with classes. For all but two occupations (plumbers and carpenters, and foremen in factories), a single class location is

[6] This is also consistent with pretest interviewers' reports that respondents enjoyed the sort board task and completed it without apparent difficulty. Note, further, that the missing data on the sort board derive predominantly from interviewers' errors in recording responses, rather than from respondent refusals.

selected by a clear majority of respondents. For 6 of the 12 occupations, one contiguous class absorbs almost all the other responses, while with the other occupations, most of the remaining responses are absorbed by two contiguous classes. This amount of agreement is especially noteworthy given the loose specification of some of the occupational categories. Because the occupational titles had to be sufficiently colloquial to be familiar to a cross-section of the population, many of the titles inevitably encompass some internal variance in prestige, job authority, educational attainment, and income. Thus, the convergence of class assignments in Table 1 is probably as strong as could reasonably be expected.

The level of agreement about the class location of different occupations seems to vary as a function of three factors that are not entirely separable in these data. Disagreement increases with occupations (1) that are in the middle, as opposed to the top or the bottom of the hierarchy, (2) that encompass more internal variance in socioeconomic characteristics, and (3) that present conflicting cues for class classification.

The three occupations that generate the most agreement in class assignments are migrant farm workers, corporation directors and presidents, and assembly-line factory workers. Each of these occupations is placed in a single class (the poor, the upper class, and the working class, respectively) by about three-quarters of the respondents. Migrant farm workers and corporation directors and presidents mark the two extremes of the class categories, and perhaps this contributes to the high agreement about their class location. This interpretation is supported by the fact that all six occupations that generate the highest agreement are at the bottom or top of the list in Table 1. Since the occupation cards were not presented to respondents in any fixed order, this suggests that there is more spontaneous consensus about the class location of occupations with clear low or high status, and more disagreement about occupation-class images in the intermediate range.

However, the two occupation cards at either end of the list are also relatively homogeneous in terms of socioeconomic status, job authority, and type of work, and so these cards constitute less ambiguous stimuli. In this connection, note that doctors and lawyers, about whom there is less agreement than about corporation directors and presidents, constitute a less homogeneous group than the latter: an equivalent elite subgroup of doctors and lawyers might be top surgeons in major hospitals and senior corporation lawyers in large law firms. Assembly-line factory workers—one of the three occupation groups about which there is the highest agreement—constitute a rea-

sonably broad range of SEI scores, but present a straightforward stimulus in terms of type of work and level of job authority. There appears to be a common conception that relatively unskilled, low authority, blue-collar work which is organized in group settings should be included in the working class. There is less consensus that workers in offices and stores belong in the working class. Apart from the blue-collar/white-collar distinction between this group and the previous one, office/store workers constitute a slightly broader range of occupations in terms of type of work (e.g., secretaries, office clerks, typists, sales clerks) and individual task discretion.

Turning to the six occupation cards about which there is less agreement (plumbers and carpenters through business executives and managers), we find that not only do these occupations fall in the middle of the list but also that each of these cards presents a more ambiguous stimulus by including multiple occupations, authority levels, education/skill levels, incomes, and/or SEI scores. Each of these cards has considerable internal variance on at least three of those five dimensions. Plumbers and carpenters have similar NORC Prestige scores, but the SEI score for carpenters is about half that for plumbers. In addition, the title "carpenters" may be interpreted as skilled tradesmen with wide individual task discretion or group-organized construction workers. Schoolteachers and social workers have similar Prestige and SEI scores, but each title incorporates considerable variation in terms of job authority, educational level, and income. Small businessmen encompass a broad range from marginal economic ventures with the owner as the sole employee to fairly prosperous businesses with several employees; the term captures wide variation in terms of occupations, incomes, education/skill levels, and sphere of authority. Both foremen in factories and office/store supervisors also represent multiple occupations, authority levels, levels of skill or education, and incomes. Business executives and managers represent considerable variation in terms of level and scope of authority, income, and education.

The two occupation cards that generate the most disagreement, in that they were assigned almost equally to two classes, are plumbers and carpenters, and foremen in factories. They are the only two occupation cards that represent skilled blue-collar work, and the assignments of both are split between the working class and the middle class. This doubtless reflects popular disagreement about the importance of the blue-collar criterion versus average job authority, skill level, and income in distinguishing working-class from middle-class occupations.

The data in Table 2 are helpful in trying to assess the sources of agreement and disagreement about the class location of occupations.

Table 2. Percentage Assigning Each Occupation to Their Own Subjective Class, by Subjective Class, with Predominant Choices Italicized

	Social Class				
Occupations	*Poor*[a]	*Working*[b]	*Middle*[c]	*Upper Middle*[d]	*Upper*[e]
Migrant farm workers	*71.9%*	25.4%	3.1%	0.7%	5.6%
Janitors	48.2	*69.6*	9.2	1.3	0.0
Assembly-line factory workers	16.5	*80.6*	20.0	3.9	5.6
Workers in offices and stores	7.4	*71.2*	42.0	5.3	0.0
Plumbers and carpenters	3.6	*52.5*	*47.2*	12.0	0.0
Foremen in factories	2.2	*48.4*	*53.5*	15.7	5.6
Schoolteachers and social workers	1.4	33.4	*71.8*	25.3	0.0
Small businessmen	9.4	28.9	*67.9*	31.8	0.0
Supervisors in offices and stores	0.0	26.3	*63.9*	32.9	5.6
Business executives and managers	0.0	4.8	12.1	*69.1*	*29.4*
Doctors and lawyers	0.0	3.3	2.8	45.8	*82.4*
Corporation directors and presidents	2.2	2.0	2.8	19.0	*76.5*

[a] Base N for Poor ranges from 136 to 139.
[b] Base N for Working Class ranges from 682 to 690.
[c] Base N for Middle Class ranges from 802 to 817.
[d] Base N for Upper Middle Class ranges from 150 to 154.
[e] Base N for Upper Class ranges from 17 to 18.

This table reports the percentage of each subjective class assigning each of the occupation groups to their own class. Note, first, that the pattern of prevailing class placements remains the same in Table 2 as in Table 1. That is, the class to which an occupation card is predominantly assigned by respondents as a whole is also the class most likely to claim that occupation. Second, disagreements in Table 1 tend to be reflected in Table 2, in that disputed occupations are more likely to be claimed by each of the classes involved than they are to be assigned to that class by respondents as a whole. Thus, occupations with the widest spread in class assignments in Table 1 tend to be "overclaimed" by the most classes in Table 2. Three of the occupation cards whose assignments are spread over three classes in Table 1 (schoolteachers and social workers, office/store supervisors, and small businessmen) are overclaimed by all three classes in Table 2. Small businessmen are also slightly overclaimed by a fourth class, the poor. This pattern of results supports the interpretation that disagreements about the class location of occupations derive substan-

tially from within-occupation variance in education, income, job authority, task discretion, and skill: respondents identifying with different social classes are likely to use different levels of occupation titles as their reference in completing the occupation-class sort board.

OCCUPATIONAL CHARACTERISTICS AND SOCIAL CLASS: PREVAILING PERCEPTIONS

I turn now to an examination of the prevailing class assignments of the 12 occupation cards. Although each card encompasses some internal variance in socioeconomic characteristics, this analysis is useful in trying to assess the rules that seem to underly the way occupations are associated with classes. A question of particular significance is the degree of popular sensitivity to the blue-collar/white-collar distinction versus socioeconomic hierarchies based on income, status, education, skill, or authority.

The blue-collar/white-collar dichotomy has frequently been treated by students of social class as synonymous with the working-class/middle-class distinction. The advent of the Duncan Socioeconomic Index (Duncan, 1961) and the NORC Prestige Scale (Siegel, 1971) led to some diminution of emphasis on the blue-collar/white-collar dichotomy, since it does not accurately reflect differences in SEI and Prestige scores. Of course, it had been argued much earlier that lower level white-collar work was undergoing gradual routinization and proletarianization (Centers, 1949:82–85; Mills, 1956). Work by Laumann (1966) further discouraged emphasis on the blue-collar/white-collar distinction: he found no significant difference between people's feelings of social distance toward the lower level white-collar occupation of sales clerks and the blue-collar occupations of machine operator in a factory or truck driver (1966:59). Use of SEI and Prestige scores brought more attention not only to the notion of occupational status, independent of whether the work was manual or nonmanual, but also to the average educational attainment and income associated with occupations. Job authority is an additional occupational characteristic that has been stressed as an important aspect of class (Dahrendorf, 1959; Wright and Perrone, 1977; Robinson and Kelley, 1979).

The blue-collar/white-collar distinction has recently been revived, however, as an indicator of working-class or middle-class membership (Dalia and Guest, 1975; Vanneman and Pampel, 1977). In addition, the relative increase in the size of the white-collar sector makes the assessment of respondents' sensitivity to the blue-collar/white-collar dichotomy especially important. Although most of this increase has

taken place in lower level white-collar jobs, it has been interpreted by theorists of "postindustrial society" as an expansion of the middle class with a subsequent increase in societal well-being and decrease in the probability of class conflict (e.g., Bell, 1973).

Of particular relevance to the blue-collar/white-collar issue are the class assignments of five occupation cards: assembly-line factory workers, workers in offices and stores, plumbers and carpenters, foremen in factories, and supervisors in offices and stores. The first two occupation groups provide the blue- and white-collar counterparts of routine work with low responsibility, although assembly-line factory workers constitute a more homogeneous group and have somewhat lower mean SEI and Prestige scores than workers in offices and stores. The predominant assignment of both occupations is to the working class, although this is done with more agreement for factory workers. Skilled blue-collar occupations with more responsibility (plumbers and carpenters, and foremen in factories) are more likely than routine white-collar jobs to be associated with the middle class. Recall, however, that skilled blue-collar occupations are the only ones that generated pronounced disagreement about their class affiliation. Clearly, some people have difficulty associating even skilled blue-collar jobs with anything other than the working class. On the other hand, routine white-collar work (where most of the white-collar expansion has taken place) generally receives a somewhat lower class affiliation than skilled blue-collar work: in the majority view, the fact that an occupation is nonmanual is insufficient in itself to make it middle class. Supervisors in offices and stores might be seen as the white-collar counterparts of foremen in factories, in terms of line of command on the job, although their equivalence on other socioeconomic characteristics is hard to assess because they are not given separate titles in the census occupational classification: their class assignment tends to be somewhat higher than factory foremen.

The blue-collar/white-collar distinction appears to play, at best, a limited role in the way occupations are associated with classes. Its clearest effect seems to be in lowering the class assignment some people give to skilled blue-collar occupations, rather than in raising the class affiliation of routine white-collar work. A comparison can be made with some of Centers' data as a way of evaluating his argument that routine white-collar work was gradually becoming increasingly proletarianized (1949: 78–85). Centers' data are for white males only, he employed a different class classification (lower, working, middle, and upper), most of his occupational titles are dissimilar to those in the present study, and he measured only the assignment of occupations to the respondent's own subjective class. Within these constraints, we can compare (a) the proportion of the white male mem-

bers of the working and middle classes, respectively, who place "factory workers" and "office workers" in their own class in the 1945 survey, with (b) the proportion of the white male identifiers with each of those classes in the 1975 survey who claim "assembly-line factory workers" and "workers in offices and stores" for their own class. The proportions claiming factory workers/assembly-line factory workers are very similar at the two time points (82 percent of the working class and 24 percent of the middle class in 1945, versus 84 percent and 21 percent of the two respective classes in 1975). However, the proportions claiming office workers/workers in offices and stores are substantially different at the two time points: 48 percent of the working class and 53 percent of the middle class in 1945, versus 76 percent of the working class and 36 percent of the middle class males in 1975. Although these data should be interpreted with caution, they lend support to Centers' argument that lower level white-collar occupations were acquiring an increasingly working-class affiliation.

The prevailing class assignments of all 12 occupation cards appear to reflect primarily their average socioeconomic characteristics, rather than whether they are blue collar or white collar. In Table 1, the occupation groups are listed in approximate ascending order according to their prevailing class assignments, and this ordering is eminently reasonable in terms of the prestige, educational attainment or skill, income, and sphere of authority associated with those occupations. The fact that migrant farm workers are the only occupational group that is placed in the poor by a majority of respondents suggests that this social class is predominantly reserved for marginal occupations which provide irregular employment. Occupations that are predominantly assigned to the working class appear to be characterized by low job authority (whether blue collar or white collar), low skill, and low socioeconomic status. Skilled blue-collar jobs are split more or less evenly between the working class and the middle class. Occupations that are predominantly placed in the middle class are white-collar jobs with moderate job authority, lower level professionals, and the petty bourgeoisie. The prevailing assignment of upper level (but not top level) positions in business is to the upper middle class. Occupations that are predominantly placed in the upper class are elite positions at the topmost level of big business, and (with less agreement) top-level professionals.

CRITERIA FOR CLASS MEMBERSHIP

The way that people define membership in their own class provides an important insight into their interpretation of social class. Especially significant is the extent to which people define their class narrowly in

terms of objective factors or more broadly to include cultural/expressive factors as well. Weber reserved the term *status group* to denote a collectivity with a shared lifestyle and set of values, and he distinguished status groups from classes by defining the latter solely in terms of common economic fate (Weber, 1946). Marxist and interest-group perspectives have maintained that this distinction is false and that classes are, indeed, *social* as much as economic collectivities (e.g., Marx, 1964; Centers, 1949; Portes, 1971). All parties agree, of course, that without the social component, class is robbed of its political significance.

Centers (1949) pursued the question of how Americans conceive of their subjective class by excluding occupation and asking respondents, "In deciding whether a person belongs to your class or not, which of these other things is most important to know: who his family is, how much money he has, what sort of education he has, or how he believes and feels about certain things?" Respondents could name more than one criterion. His results suggested that the cultural/expressive aspect of class is subjectively more important than any of the others: 47 percent of his white male respondents named "how he believes and feels about certain things" as most important in deciding whether a person belongs to their class. Differences among the other three criteria were not nearly as great: education was mentioned by 29 percent of the respondents, family background by 20 percent, and money by 17 percent.

In the present study, separate data were gathered on the rated importance of each of six possible criteria for membership in one's own social class, including occupation. To avoid introducing a bias in favor of naming occupation, these questions were asked before the occupation-class sort board was administered.

> In deciding whether someone belongs to the [class with which R has identified], how important is each of these things to you?
> The person's occupation? . . .
> What sort of education the person has? . . .
> How much money the person has? . . .
> How the person believes and feels about things? . . .
> The person's style of life? . . .
> The kind of family the person comes from? . . .

For each criterion, the respondent was asked, "Is this very important, somewhat important, or not important to you in deciding whether someone belongs to the [class with which R has identified]?"[7]

[7] Only 19 percent of the sample responded affirmatively to a follow-up question, "Is there anything else that you think is important . . . ?" and these respondents provided a total of more than 20 alternative additional criteria.

Table 3. Correlations Among the Six Criteria for Membership in One's Own Subjective Social Class[a]

	Occupation[b]	*Education*	*Money*	*Beliefs*	*Style*	*Family*
Occupation	—					
Education	.424	—				
Money	.298	.251	—			
Beliefs	.147	.286	−.019	—		
Lifestyle	.206	.278	.240	.354	—	
Family	.218	.321	.158	.287	.327	—

[a] Each correlation excludes the missing data from that pair of variables only. *N*'s range from 1,839 (*r* between Family and Beliefs) to 1,857 (*r* between Education and Occupation).

[b] All criteria are scored so that "Don't Know" is given the same score as "Not Important."

In drafting these questions, it was intended that the first three criteria (Occupation, Education, Money) reflect more objective characteristics, and that the next criteria (Beliefs, Style) reflect more expressive or cultural characteristics. The last criterion (Family) deals with inheritance and socialization, and it is more ambiguous whether this might be interpreted as an objective and/or a cultural factor.

Before examining the rated importance of these six possible criteria for class membership, we can check their validity by investigating the degree to which respondents differentiated among them.[8] The correlations among the criteria (in Table 3) provide data on their empirical grouping and aid in interpreting their meaning to respondents. The highest correlation is between Occupation and Education (.424), followed by that between Beliefs and Lifestyle (.354). Occupation and Money both correlate more highly with each other and with Education than they do with the other three criteria. Education, however, has its highest correlation with Occupation but its lowest correlation with Money. These results suggest that, of the first three criteria, Occupation and Money may be interpreted as objective status criteria, while Education is primarily an objective criterion that has a significant cultural/expressive component as well. This interpretation

[8] A count of responses over the six criteria suggests that the overwhelming majority of respondents found the criteria meaningful and differentiated among them. Only about 7 percent of the respondents said "don't know" to any of the six items; 4 percent said "don't know" to only one criterion, and one-half of the remainder said "don't know" to two criteria. Fewer than 4 percent of the respondents said that all 6 criteria were "very important," while only another 6 percent rated five of the criteria as very important, and 9 percent gave this response for four criteria. Less than one-sixth thought three criteria were very important, while approximately one-fifth each rated two criteria or only one criterion as very important. Another fifth rated none of the criteria as very important. A count of the responses "somewhat important" and "not important" over the six criteria yielded parallel figures.

Table 4. Rated Importance of Six Criteria for Membership in One's Own Subjective Social Class: Percentage Distributions for All Respondents

	Rated Importance				
Criteria	*Very Important*	*Somewhat Important*	*Not Important*	*Don't Know*	*Base N*
Occupation	37.0	30.8	29.8	2.4	1,864
Education	33.2	35.6	29.7	1.6	1,859
Money	28.9	30.9	38.1	2.0	1,856
Beliefs and feelings	40.0	28.5	27.9	3.6	1,852
Style of life	38.6	34.0	24.1	3.3	1,855
Kind of family	21.4	27.6	49.2	1.8	1,849

is supported by the fact that the last three criteria (Beliefs, Lifestyle, Family) all correlate more highly with Education than with the other two objective criteria. Of the last three criteria, Beliefs has its highest correlation with Lifestyle, and its next highest with Family and with Education; Lifestyle has its highest correlations with Beliefs and Family, and Family has its highest correlations with Lifestyle and Education. Thus, Beliefs and Lifestyle group together, while Family may be interpreted as predominantly an expressive/cultural criterion but with a small objective status component. In short, the six criteria do form two broadly interpretable groups. At the same time, of course, the correlations between the objective and cultural criteria suggest that they are not mutually exclusive.

I turn now to the importance of these six possible criteria in Americans' definitions of their social class. Table 4 presents the percentages of respondents rating each criterion as "very important," "somewhat important," and "not important" (as well as those saying "don't know"). The three factors that are most likely to be considered very important are "how the person believes and feels about things," "style of life," and "occupation"; each is rated "very important" by approximately two-fifths of the respondents. Education is only slightly behind in rated importance, and it is as likely to be considered at least "somewhat important" as the three criteria above. Money and family background are the least likely to be considered important, with almost 4 out of 10 and 5 out of 10, respectively, saying these two factors are "not important" in the way they define their social class.[9]

These data indicate that cultural/expressive factors weigh at least as heavily as objective status characteristics in Americans' conceptions of their social class. These results are fairly consistent with those obtained by Centers 30 years earlier, although the emphasis on

[9] Note that Americans' conceptions of class pay little attention to a person's family background. Social mobility appears to be both expected and accepted. This is consistent with Centers' results, although the rated importance of family background seems to have fallen more sharply behind other factors in the present study.

Table 5. Mean Rated Importance of Six Criteria[a] for Membership in One's Own Subjective Social Class, by Subjective Class and Race

	Occupation	*Education*	*Income*	*Beliefs*	*Style*	*Family*
Whites[b]						
Poor	2.17	2.23	2.34	1.96	2.09	1.82
Working	2.12	1.95	1.76	2.06	1.98	1.66
Middle	1.93	1.96	1.94	2.07	2.19	1.69
Upper middle	1.97	2.03	1.94	2.13	2.14	1.57
Upper	2.00	2.44	1.69	2.25	2.56	2.06
Blacks[c]						
Poor	2.28	2.42	2.13	2.37	2.21	1.94
Working	2.20	2.26	1.77	2.36	2.33	2.05
Middle	2.28	2.14	1.86	2.30	2.16	1.84

[a] Criteria scored as follows: "Not Important" and "Don't Know" = 1, "Somewhat Important" = 2, "Very Important" = 3.

[b] Base *N*'s for each of the classes among whites range as follows: Poor (76–78), Working (580–588), Middle (758–761), Upper middle (147–149), Upper (16). Note the Upper Class *N* is too small to be reliable.

[c] Base *N*'s for each of the classes among blacks range as follows: Poor (52–53), Working (80–81), Middle (43). Since only 3 blacks identified with the Upper middle and 3 with the Upper Class, means for these groups are not presented.

cultural/expressive factors is less exclusive in the present data.[10] Recall that the correlations among the six criteria indicate that few people mentioned exclusively cultural or objective factors:[11] this implies that class is indeed popularly interpreted as a social, as well as an economic, phenomenon in the American consciousness. The criteria people use to define membership in their social class exceeds the narrow Weberian definition of class and is more consistent with the Marxist and interest-group interpretations.

Examination of the criteria for class membership in each of the subjective classes indicates only a slight variant on this general theme. Table 5 presents the mean rated importance of each of the six criteria by subjective class and race (the control for race is necessary since blacks are more likely to rate all the criteria except Money as "very important" and the proportion black increases with descending social class). Weber argued that people in higher status groups would be more inclined to define group membership in terms of cultural characteristics, as a way of keeping their membership more exclusive (Weber, 1946:192–93). Consistent with this argument, there is a slight

[10] The results in the present study for white males only are essentially the same as those for the full sample.

[11] Indeed, a separate analysis indicates that only about 8 percent of the sample (excluding missing data) limited their choices to occupation, education, or income, and only about 10 percent limited their choices to beliefs, lifestyle, or family; as many as 80 percent chose at least one criterion from the first group *plus* at least one from the second group.

tendency among whites for the relative mean importance assigned to expressive, rather than objective, criteria to increase with ascending subjective class (this pattern is not, however, found among blacks). Reading across the rows, the two criteria that receive the highest mean ratings among whites identifying with the poor are two objective criteria, Income and Education. For working class identifiers, the two criteria with the highest mean ratings are Occupation and Beliefs—one objective and one expressive criterion. Among those identifying with either the middle or the upper middle class, the two criteria with the highest mean ratings are both expressive, Lifestyle and Beliefs. These class differences should not, however, be overstated. There is only slight variation by class around the persistent prominence of both objective and expressive criteria in the definition of class membership.

Summary and Conclusions

This paper has explored the meaning that Americans assign to five common social class terms: poor, working class, middle class, upper middle class, and upper class. Although these terms are frequently used, there has been no thorough analysis of their meaning to Americans since Centers' classic study published 30 years ago. Such an analysis is especially germane since some have argued that social class has become meaningless or irrelevant to most Americans.

Direct comparison with Centers' study is complicated by differing samples and items, but the general pattern of my results suggests that social class is no less significant to Americans in the 1970s than it was in the 1940s. About 8 out of 10 Americans feel at least somewhat strongly about their identification with a social class, and as many as 5 out of 10 feel very strongly about it. More important, the critical exercise of associating occupations with classes elicits little or no confusion from most respondents, who also demonstrate considerable agreement about how occupations are affiliated with classes.

The way Americans associate occupations with classes suggests that they are more sensitive to socioeconomic hierarchies based on occupational prestige, education, skill, income, job authority, and task discretion than they are to the blue-collar/white-collar dichotomy. However, the only occupations that elicit sharp disagreement about their class location are the skilled blue-collar occupations. Thus, while nonmanual status is most commonly considered insufficient for middle-class membership if the work is routine, it is also the case that many respondents cannot think of manual work as middle class, even if it is skilled.

Beyond the basic issue of the perceived affiliation of occupations

with classes, Americans' broader definitions of criteria for membership in their own social class indicate clearly that class is experienced as a social or cultural affinity as much as an objective, economic affinity. Such cultural/expressive criteria as "how the person believes and feels about things" and "the person's style of life" are as likely to be considered important in defining one's subjective social class as "the person's occupation." While the relative importance assigned to cultural/expressive factors increases somewhat with ascending social class, the emphasis on cultural or objective criteria is far from mutually exclusive in any class.

In short, the analyses in this paper suggest that there is reasonable agreement about the basic issue of the association between occupations and classes, and that popular notions of this association are guided by standard socioeconomic criteria. They also suggest, however, a widespread tendency to define class membership more broadly than by objective status characteristics alone. These patterns are at variance with the idea that there is considerable confusion about class, and they offer little support for the more general argument that social class is of dwindling significance in the United States.

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Changes in White Attitudes Toward Blacks: 1963–1977

JOHN G. CONDRAN

SOCIAL SCIENTISTS have devoted serious attention to the attitudes of the American population toward black people since the early 1940s. The results of these studies are well known; white Americans have become far more accepting of virtually every aspect of racial integration (see Schwartz, 1967, for studies before the mid-sixties, and Taylor et al., 1978, for a summary of the more recent work). Consistent relationships between racial attitudes and important social structural characteristics have also been repeatedly noted. Racial "liberals" are typically young, well educated, and nonsouthern (Hyman and Sheatsley, 1956 and 1964; Sheatsley, 1965; Schwartz, 1967; Greeley and Sheatsley, 1971; Campbell, 1971; Taylor et al., 1978). The young show greater liberality of attitude toward racial matters presumably because the most recent cohorts have experienced a more "liberal" socialization and because they are more susceptible to the influence of period events (Ryder, 1965). The better educated are more "liberal" for a variety of reasons including intellectual enlightenment

Abstract This paper investigates white attitudes toward blacks from national survey data collected in 1963, 1972, and 1977. Five attitude items are examined with respect to a full multivariate framework including age, educational attainment, region of residence, and time as independent variables. The results generally show large effects for each independent variable on each attitude item, net of the others. Variations from this pattern are also explored. There is evidence that racial liberalism among whites is slowing its growth in the 1970s and even reversing in some cases. The results are discussed and tentative conclusions suggested.

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Public Opinion Quarterly © 1979 by The Trustees of Columbia University
Published by Elsevier North-Holland, Inc. 0033-362X/79/0043-463/$1.75

(Campbell, 1971:61–9), enhanced psychological ego strength (Schwartz, 1967:119), the close association of ecucation with general socioeconomic status (Noel, 1971:67), and issue life history effects (Schreiber, 1978). Nonsoutherners are typically more "liberal" because of differential racial socialization and the pressures of social control on racial attitudes (Noel, 1971; Reed, 1972; Middleton, 1976).

Further, some of these studies have demonstrated that age and education similarly affect racial attitudes in the South and the non-South and that education maintains its effect while controlling for age (but see Campbell, 1971, for a dissenting view). However, what none of these studies has done is to simultaneously examine the effects of age, education, region of residence, and the passage of time in a fully multivariate framework. That is the purpose of this paper.

Procedures

Subsequent to the 1963 benchmark study of racial attitudes conducted by the National Opinion Research Center, most attitude surveys have used some or all of eight items contained in it. Five of these items are also available from the General Social Survey (Davis, 1978) for 1972 and 1977. The items are as follows:

SCHOOLS— Do you think white students and Negro students should go to the same schools or to separate schools? (same, separate)

DINNER— How strongly would you object if a member of your family wanted to bring a Negro friend home to dinner? (not object, object)

MARRIAGE— Do you think there should be laws against marriages between Negroes and whites? (no, yes)

HOUSING— White people have a right to keep Negroes out of their neighborhoods if they want to, and Negroes should respect that right. (disagree, agree)

INTRUSION—Negroes shouldn't push themselves where they're not wanted. (disagree, agree)

The possible responses in parentheses are, respectively, the "liberal" and the "nonliberal" alternatives.

Instead of aggregating responses to these five items to form a unidimensional scale, it seems preferable to examine the impact of the independent variables on each item separately. That way different relationships between the racial attitude items and the explanatory factors can be discerned. The manner of coding of the independent variables is as follows:

COHORT: Age is aggregated into birth cohorts for comparability across the three survey dates. Five cohort bands are identified for all three dates and more recent cohort bands for two dates or one date.

EDUCATION: Respondents are categorized into three educational attainment

classes: some college or more, high school graduates, and less than a high school degree.

REGION: Respondents are classified into southern and nonsouthern region of residence based on the U.S. Census classification.

TIME: Respondents are classified by the survey date in which they appeared, the 1963 NORC survey, the 1972 GSS, or the 1977 GSS.

Since the dependent variables are categorical in nature, traditional regression procedures are less than fully appropriate, especially with regard to homoscedasticity. Accordingly, Goodman's log-linear techniques will be used for this analysis (Goodman, 1972). This modified multiple regression procedure allows for the specification of additive effects on the log-odds of responding in a "liberal" manner for each dependent variable.

The other feature of the log-linear approach that is attractive in this context is the ability to unambiguously set various interaction effects to zero and test that model against the observed data. If the model fits, the interaction effect is unnecessary to represent the data; if the model does not fit, the interaction term is necessary (Goodman, 1971; Davis, 1975c). It is important to actively search for significant interaction terms in this topic area (and perhaps many others) since it is quite possible that the effect of one independent variable on a racial attitude may vary with the level of another independent variable. Identification of these interactions should assist us in understanding the determinants of racial attitudes and the dynamics that underlie their change. Conversely, the lack of a significant interaction term may also be of theoretical interest.

In the remainder of this paper, zero-order relationships between the independent variables will be shown; various models for the observed data will be specified and tested and final models determined; modified multiple regression equations for each dependent variable will be presented; selected odds ratios in each equation will be shown; and finally, the results will be discussed and tentative conclusions drawn.

Results

The marginal distribution (percent "liberal") and the zero-order relationships between the dependent variables and the independent variables are shown in Table 1. With the exception of INTRUSION, white attitudes have become substantially more "liberal" from 1963 to 1972. From 1972 to 1977, however, with the exception of MARRIAGE, the changes are much smaller and, in the case of HOUSING, has reversed.

The relationships between cohort membership, educational attain-

Table 1. Percent Liberal for Five Racial Attitudes by Birth Cohort, Education, and Region, U.S. Whites, 1963, 1972, and 1977

		Birth Cohort							*Education*			*Region*	
	All	*1956–1959*	*1951–1955*	*1946–1950*	*1936–1945*	*1926–1935*	*1916–1925*	*1906–1915*	*before 1906*	*Col.*	*HS*	*<HS*	*Non-South*	*South*
Schools														
1963	62.9				68.0	70.2	65.9	61.5	50.7	74.9	72.3	52.3	75.7	29.7
1972	86.2		96.1	96.1	86.9	89.7	84.2	83.7	72.7	96.1	91.1	73.6	92.1	68.4
1977	86.0	91.4	94.1	88.2	89.7	88.1	86.0	74.5	71.4	95.3	90.0	74.2	91.6	72.9
Dinner														
1963	49.6				56.4	50.5	48.0	54.1	42.8	62.5	54.4	41.3	58.3	27.2
1972	69.7		82.1	74.5	71.2	70.8	64.4	72.2	60.3	78.9	69.5	62.1	75.5	52.4
1977	71.1	82.9	80.9	78.0	75.4	70.9	70.3	50.0	62.4	83.8	72.8	58.0	75.7	60.3
Marriage														
1963	36.4				45.3	45.8	39.2	32.0	22.1	59.6	42.8	22.6	43.1	19.1
1972	60.7		84.2	77.7	66.9	65.0	57.7	52.9	32.1	77.7	66.4	41.4	66.6	43.2
1977	71.7	84.1	88.4	89.9	80.6	75.2	61.6	46.1	45.2	89.7	78.9	48.7	79.9	52.5
Housing														
1963	39.3				46.3	46.8	43.0	36.1	26.4	53.6	44.5	29.9	46.7	20.1
1972	59.9		80.0	75.2	65.8	63.5	55.1	46.6	42.3	74.7	60.3	46.8	64.3	46.9
1977	57.6	69.5	71.5	62.0	63.8	60.5	50.0	41.2	41.2	71.1	61.1	42.2	62.6	45.7
Intrusion														
1963	21.8				29.5	27.8	17.1	21.0	15.4	35.2	21.5	15.8	25.7	11.8
1972	24.2		51.4	40.1	29.5	26.2	14.2	11.5	14.5	37.5	23.4	14.2	27.9	13.7
1977	27.1	40.2	38.9	35.5	37.5	22.5	19.7	13.0	10.4	43.8	24.4	15.1	31.8	15.8

NOTE: See text for definitions of variables.

ment, and region of residence and each of the dependent variables show similar patterns. Cohorts, educational strata and regions are all quite differentiated with respect to their liberalism on all items. Younger, better-educated, nonsoutherners are more "liberal" than their counterparts at all dates. Also, the pattern of attitude change seems not inconsistent with a model asserting a constant rate of change for each category of each independent variable. Thus, it is not only the youngest cohorts who are becoming more "liberal" over time, but also members of older cohorts. Essentially the same statement applies to members of the educational and regional categories.

The careful reader of Table 1 will note that there appears to be some evidence of a "closing of the gap" between the South and the non-South for at least SCHOOLS, DINNER, and HOUSING over time. Whether this is true or merely attributable to the random fluctuation of sampling error is the type of question that has plagued survey analysts for decades. The resolution of this seeming dilemma requires the formal invocation of probability theory. It is precisely this which the log-linear system offers (Duncan, 1975).

Table 2 contains the results of the search for adequate models of effects that well represent the data without extraneous terms. Panel A shows the independence model for each dependent variable. This model asserts that there is no association between the dependent variable and any of the independent variables. It is not expected to fit. The utility of this model is that it shows the total amount of association in the dependent variable that may be assigned to the independent variables for explanation. Thus, its chi-square value is somewhat analogous to the total sum of squares in the analysis of variance. The remaining panels involve the partitioning of this total association value.

Panel B shows the chi-square value for the main effect mode. This model asserts that each independent variable is associated with the dependent variable and that there are no interactions between the independent variable and the dependent variable. The figure to the right of the chi-square value indicates the amount of the total association not explained by this model. Thus, it is somewhat analogous to $1-R^2$ from the more familiar metric linear model. Each main effects model accounts for at least three-fourths of the total association and some, notably SCHOOLS and MARRIAGE, account for substantially more.

Panel C shows the net direct effects of each of the main effects from panel B for each dependent variable. The chi-square value is indicated along with the amount of the total association in the dependent variable associated with that main effect. The righthand figure in each vertical block then shows the percent of the total association attribut-

Table 2. Log-Linear Models of Selected Determinants of Racial Liberalism, for U.S. Whites 1963, 1972, and 1977

		Schools		*Dinner*		*Marriage*		*Housing*		*Intrusion*	
Model	*df*	χ^2_{LR}	χ^2_H/χ^2_T	χ^2_{LR}	χ^2_H/χ^2_T	χ^2_{LR}	χ^2_H/χ^2_T	χ^2_{LR}	χ^2_T/χ^2_H	χ^2_{LR}	χ^2_H/χ^2_T
A. Baseline model											
(A)(CERT)	89	852.97	100.00	488.51	100.00	887.00	100.00	464.17	100.00	342.96	100.00
B. Main effects model											
(AC)(AE)(AR) (AT)(CERT)	80	106.10	12.44	100.57	20.59	86.78	9.78	93.53	20.15	79.41	23.15
C. Net direct effects of main effects model											
1. (AC)	4	25.72	3.02	7.10	1.45	83.15	9.37	49.69	10.70	58.79	17.14
2. (AE)	2	127.36	14.93	76.16	15.59	240.99	27.17	97.39	20.98	91.13	26.57
3. (AR)	1	336.58	39.46	163.60	33.49	163.32	18.41	89.57	19.30	66.52	19.40
4. (AT)	2	168.66	19.77	87.18	17.85	161.46	18.20	50.49	10.88	6.57	1.92
D. Net effects of 3-way parameters											
1. (AET)	4	14.47	1.70								
2. (ART)	2			10.15	2.08			10.32	2.22		
3. (ACT)	8			27.05	5.53						
E. Full model		91.63	10.74	62.73	12.84	86.78	9.78	83.20	17.92	79.41	23.15

NOTE: Variables are: A—the specific attitude item; C—birth cohort; E—educational attainment; R—region of residence; T—time of survey. *df* = degrees of freedom associated with the model. χ^2_{LR} = the likelihood-ratio chi-square value. χ^2_H/χ^2_T = the percent of the baseline chi-square value accounted for by the chi-square value of the model. The values in panels A, B, and E indicate the amount of association unexplained by the model. The values in panels C and D indicate the amount of association explained by the model.

able to each independent variable. This percent can thus be interpreted in a manner somewhat analogous to a partial R^2 measure from the metric linear model. The effects of birth cohort are generally modest, except for INTRUSION, indicating that cohort differentiation does not account for a large share of the variation in racial attitudes. Education accounts for substantial amounts of the total association in the dependent variables, especially for MARRIAGE and INTRUSION. This indicates that educational differentiation has been and continues to be a powerful explanatory factor in understanding racial attitudes. Region of residence also accounts for large amounts of variation in the dependent variables. The minimum amount of association attributable to region of residence is about 20 percent and, in the case of SCHOOLS, it is about 40 percent. One must conclude that region of residence continues to have a pervasive effect on the racial attitudes of white Americans that is independent of the effects of age, education, and time. The last main effect, time of survey, shows that for all the dependent variables except INTRUSION, attitude changes have occurred that are independent of the other variables. This is attitude change in its "pure" form, not associated with changes in the composition of the population. The percents associated with time are substantial for SCHOOLS, DINNER, and MARRIAGE, and intermediate for HOUSING and small for INTRUSION.

Panel D shows the net effects of interaction terms that were significant ($p < .01$) beyond the main effects model. SCHOOLS shows interaction terms between education and time, DINNER shows interaction terms between region and time and between cohort and time, and HOUSING shows an interaction term between region and time. The chi-square values and the percent of the total association attributable to these three-way effects are also presented.

Finally, panel E shows the chi-square value for the full models and the amount of the total association not explained by that model. These full models account for about 80 percent of the association for HOUSING and INTRUSION and for about 90 percent of the association for SCHOOLS, DINNER, and MARRIAGE. For MARRIAGE and INTRUSION the figures are the same as in panel B because there are no interaction terms involved for those variables.

The foregoing analysis has shown the magnitude of the effects in the final models for each dependent variable. It is also necessary to examine the nature of these effects. As in traditional multiple regression analysis, knowledge of correlation coefficients does not generally imply the regression coefficients. Table 3 shows modified multiple regression coefficients (betas) for each dependent variable. They can be interpreted in a manner analogous to regression coefficients from a

Table 3. Modified Multiple Regression Coefficients (Betas) for the Full Models for Racial Liberalism

Variables	*Schools*	*Dinner*	*Marriage*	*Housing*	*Intrusion*
(Intercept)	1.316	.358	−.038	−.164	−1.590
Birth cohort					
1936–1945	.154	.188	.432	.334	.564
1926–1935	.254	.036	.370	.276	.234
1916–1925	.102	−.046	.032	.020	−.234
1906–1915	−.084	−.030	−.206	−.222	−.240
before 1906	−.426	−.150	−.630	−.408	−.324
Education					
College	.746	.444	.762	.508	.590
High school	.052	−.028	.010	−.074	−.160
<High school	.798	−.416	−.772	−.434	−.430
Region					
Non-South	.874	.526	.572	.404	.456
South	−.874	−.526	−.572	−.404	−456
Time					
1977	.508	.290	.564	.180	.028
1972	.448	.238	.098	.290	−.154
1963	−.956	−.528	−.662	−.470	.126

dummy variable analysis. Specifically, the equations refer to the log-odds of responding in a "liberal" manner on an item when categorized in a particular manner on the independent variables. These beta coefficients or "slopes" thus indicate the nature of the relationship between a given independent and dependent variable.

The first row of Table 3 shows an intercept value. This indicates the overall response tendency of the pooled samples. For SCHOOLS, most respondents take a "liberal" position (large positive value), whereas for INTRUSION, most respondents take the nonliberal stance (large negative value). Throughout the table, a positive value indicates an association of that category of that variable with the "liberal" response *as compared to the average response*, given by the intercept value. Conversely, a negative value indicates a dissociation of that category of that variable with the "liberal" response *as compared to the average response*, given by the intercept value.

The intercept values show that SCHOOLS receives the most liberal support followed, in order, by DINNER, MARRIAGE, and HOUSING, and finally INTRUSION, which receives the least liberal support. At the risk of repetitition, it should be borne in mind that as the beta coefficients for the independent variables are presented, they must be seen as deviations from the central value of the intercept. Thus, when we see a large, positive beta coefficient for a category of an independent variable, this does not necessarily mean individuals so classified are extremely "liberal"; it may mean they are "illiberal" but far less so than the average.

The effect coefficients for birth cohort show generally predictable relationships with the dependent variables. For MARRIAGE, HOUSING, and INTRUSION the betas decline monotonically with increasing age, suggesting the persistent effects of early socialization on racial attitudes. For SCHOOLS there is a reversal between the youngest and next youngest cohorts. Whether this indicates a turn away from the high levels of liberalism on this item for the youngest cohort is not clear. However, it is instructive to note that this did not occur for any of the other four dependent variables. For DINNER the coefficients are quite small relative to the other items but, with one exception, in the expected direction. SCHOOLS, HOUSING and INTRUSION show substantial cohort differentiation, DINNER relatively little, and MARRIAGE the greatest amount.

The population is differentiated with regard to educational attainment on all five racial attitude items in the expected direction. SCHOOLS and MARRIAGE show the greatest amount of differentiation while the others show moderate amounts.

With regard to region of residence, in all cases the South is decidedly less liberal than the non-South, net of all other independent variables. The contrast is sharpest for the SCHOOLS item and smaller but substantial for the other four.

The last variable shows the effect of the passage of time, net of the other independent variables. For SCHOOLS, DINNER, and HOUSING the respondents in the 1963 survey were decidedly less "liberal" than the respondents in the other two surveys and the difference between two surveys in the 1970s is much smaller than the difference between 1963 and 1972. The change in attitudes that has occurred across the board for everyone occurred mainly in the 1960s and very early 1970s. However, the other two dependent variables are not so arranged. For MARRIAGE about as much change in attitudes has occurred between 1972 and 1977 as occurred between 1963 and 1972. And for INTRUSION, although there has not been substantial change over time, what change that has occurred indicates a retrenchment in "liberal" attitudes, especially from 1963 to 1972. This is perhaps interpretable as one recalls the timing of the major thrusts of the civil right movement during the 1960s, if we assume the INTRUSION item is a measure of generalized negative feelings toward blacks prescinding from any norms of social justice. This point will be developed in the next section.

As indicated above, there are interaction terms pertaining to three of the five racial items under consideration. In Table 4 the beta coefficients for these interaction terms are displayed.

DINNER is involved with two interactions between independent variables, birth cohort with time, and region of residence with time.

Table 4. Three-way Parameter Effect Coefficients (Betas) for the Full Models

Dinner	*Cohort by time*				
	1936–45	*1926–35*	*1916–25*	*1906–15*	*before 1906*
1977	.118	.140	.246	−.536	.030
1972	−.192	.082	−.150	.272	−.012
1963	.072	−.222	−.096	.264	−.018
	Region by time				
	Non-South	*South*			
1977	−.194	.194			
1972	.058	−.058			
1963	.136	−.136			
Schools	*Education by time*				
	College	*High School*	*High School*		
1977	.118	.038	−.154		
1972	.242	−.098	−.144		
1963	−.360	.060	.300		
Housing	*Region by time*				
	Non-South	*South*			
1977	−.094	.094			
1972	−.104	.104			
1963	−.198	−.198			

The betas form no discernible pattern in the cohort with time interaction and are apparently due in large part to the anomalous drop in percent "liberal" among persons in the 1906–1915 cohort for 1977 (see Table 1). Even though the interaction is statistically significant, there appears to be no compelling substantive significance involved. The other interaction pertaining to DINNER is with region and time. The betas indicate there is a statistically significant "closing of the gap" between the South and the non-South over time. In the non-South, respondents are less "liberal" in 1977 than the coefficient for time would lead us to believe, and in the South the respondents are more "liberal" in 1977, again compared to the unadjusted time coefficient.

For SCHOOLS, the interaction involves education and time. The beta coefficients show the opposite of the above interaction, namely, a "widening of the gap" between educational strata. The college-educated are more "liberal" in the 1970s than expected on the basis of the time coefficients, and those with less than a high school diploma are less "liberal" in the 1970s than expected on the same grounds.

The last interaction affects HOUSING, involving again region and

Table 5. Selected Odds Ratios Between Birth Cohort, Education, Region of Residence, and Time and Five Racial Attitudes from the Full Models

	Schools	*Dinner*	*Marriage*	*Housing*	*Intrusion*
Main effects					
Birth cohort					
1936–1945/ before 1906	1.786	1.402	2.892	2.100	2.430
Education					
College/ <High school	4.683	2.363	4.637	2.565	2.773
Region					
Non-South/ South	5.743	2.862	3.139	2.243	2.489
Time					
1977/1963	4.323	2.266	3.408	1.916	0.907
Interactions					
Region					
1977		1.942		1.859	
1972		3.216		1.822	
1966		3.758		3.333	
Education					
1977	7.553				
1972	4.581				
1963	2.974				

time. The pattern is the same as for DINNER; in the non-South, respondents are not as "liberal" as the time coefficient would indicate, and in the South they are more "liberal" than the time figure suggests.

Finally, selected odds ratios between the independent variables and each dependent variable are presented in Table 5. Since these ratios are scalar quantities, they are easily interpretable, indicating how many times more likely members of one category of a variable are to be "liberal" than are members of another category. Thus, the upper lefthand entry of Table 5 shows that members of the youngest cohort are 1.786 times more likely to respond in a "liberal" manner on the SCHOOLS item than are members of the oldest cohort. The odds ratios for the interaction terms discussed above are also shown in Table 5, except for the anomalous cohort by time interaction for DINNER.

Discussion

In this section the similarities and differences in the determinants of response patterns and changes in these patterns will be emphasized by discussing the findings, racial item by racial item.

For SCHOOLS we see a strong pattern of differentiation with regard to all the independent variables in predictable directions. The interaction between education and time shows that the odds of responding in a "liberal" manner have increased over time for the better educated as compared to the less well educated. This is because the better educated have become virtually unanimous in their approval of integrated schools whereas the less well educated have changed at a slower rate. The downward shift in approval for the youngest cohorts, not included in the multivariate analysis (Table 1), adds a cautionary note to this extremely "liberal" picture.

For DINNER the odds shown in Table 5 are generally small. This means there is little differentiation among categories of the independent variables. The interaction between region and time shows that the South has become more "liberal" on this issue over both time periods, but the non-South has "stalled" at 1972.

For MARRIAGE we see the greatest cohort differentiation. Since intermarriage has traditionally been the least acceptable form of racial integration, this comes as no surprise. The other odds ratios are also quite large, indicating continuing differentiation among members of the population on this issue.

For HOUSING we note the interaction between region and time. The odds show that the gap between the South and the non-South closed somewhat between 1963 and 1972 but not thereafter. Also, there is some evidence, as with SCHOOLS, of declining liberalism. From Table 1 we see the youngest cohorts moving away from the "liberal" position rather sharply. It may well be the case that attempts to integrate housing in our society, or at least the *perception* that such efforts have been made, are causing some modification of attitudes among white Americans.

The last item, INTRUSION, shows the least amount of overall liberalism and the least amount of change over time. There is substantial differentiation among members of the population, especially among cohorts. If there is some sense in interpreting responses to this item as an index of "free-floating" hostility toward blacks, unencumbered by norms of social justice that have penetrated the other items, the low liberalism and relative lack of change become understandable. White Americans may have simply improved their conformity to the increasingly institutionalized normative standards of an officially "liberal" society.

Conclusions

From 1963 to 1972 there is unambiguous evidence of generally liberalizing racial attitudes in our society. This is consistent with the

analysis of Taylor et al. (1978) and other analyses of similar (Davis, 1975a) and dissimilar (Davis, 1975b; Duncan, 1973) attitudes studies. The period between 1972 and 1977, however, is less clear. For some of our attitude items, the liberalizing process continues unabated. For others, progress has essentially halted and in two cases (HOUSING and INTRUSION) reversed.

With the data at hand, it is clearly not possible to provide a final answer to the "why" of these progressions, halts, and reverses. This paper has been more an exercise in specifying the "where" of racial attitude change rather than the "why." One is tempted to indulge in speculation about the changes in the economy and other threat-producing aspects of the 1970s in search of an interpretation for these findings. But this would be *only* speculation. Social scientists need far more reliable information on both racial attitudes and macro-social characteristics before such speculation becomes informed. One message is clear, however: The "liberals" of 1977 have less reason to be sanguine concerning white American racial attitudes than their counterparts of 1972.

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Different Settings, Different Results? A Comparison of School and Home Responses

ANNE ZANES AND EUTHEMIA MATSOUKAS

DIFFERENCES in the amount of reported drug use among adolescent respondents in studies conducted in school and at home by our research group at Columbia University raised the question of possible response bias because of the setting of the interview. In a 1971 study among students in 18 high schools, the average level of reported use of marijuana and other illicit drugs was greater in every school studied than the reported use in a small-scale national representative household sample survey of youngsters twelve to seventeen years old completed the same year. Among the 18 high schools, the proportion of students reporting any use of marijuana ranged from a low of 23 percent in one school to a high of 58 percent in another. But in the national sample survey, only 15 percent reported such use (Elinson et al. 1977: Sections 3 and 7).

Several possible explanations may account for the difference in results. One is that the 18 schools were not selected to represent all United States high schools. Indeed, some were purposely chosen because drug use was thought to be especially prevalent among their students. Another explanation involves age differences in the two samples. In the study of high schools, approximately 5 percent of the students were over the age of seventeen. Since older youth report using more drugs than those younger (Elinson et al.), this may account for some of the differences in results.

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Public Opinion Quarterly © 1979 by The Trustees of Columbia University
Published by Elsevier North-Holland, Inc. 0033-362X/79/0043-550/$1.75

Another possible explanation has to do with the setting of the two surveys. In the school survey, young administrators went to the classrooms and asked students to fill in anonymous questionnaires; in the national household sample survey, older interviewers asked young people to fill out a similar abbreviated questionnaire. Although the youths were not asked to identify themselves in any way, they could hardly believe that their identity was unknown to the interviewers who found them at home.

In a different study comparing reported drug use at home and at school among frequently absent students, Kandel (1975) found less reported use of all types of drugs in the home interviews than at school, concluding that "despite verbal assurances of anonymity, personal interviews undoubtedly led to an underreporting of drug use within this sample of absentees."

The methodological question raised by these studies and dealt with in this article is whether it makes any difference in the results if youngsters respond to questionnaires about drug use and less threatening issues at home or in the more anonymous school setting. Do young people feel less threatened within a group at school than individually at home?

Method

To answer this question, an experiment was designed in which two matched samples of young people attending a single school were given identical questionnaires, half in the classroom and the other half at home. By using self-administered questionnaires in both settings, and by limiting the experiment to students in one school from one community, it was felt that any differences which might occur in reported drug behavior would be largely a result of the setting in which the data were collected. The self-administered questionnaire was selected as the method of data collection since this is the method used most frequently in school surveys. More honest reporting might be expected on a self-administered questionnaire if a topic is considered to be threatening.

The subject matter for the experiment ranged from issues thought to have relatively little saliency and little threat for the respondent, such as measurement of attitudes toward leaders of the country, to issues judged a priori to be both threatening and salient, such as questions about illegal drug behavior. The range of the subject matter is of interest in light of Sudman and Bradburn's findings (1974) which show "the higher the threat, the greater the response effect, but the higher the saliency, the lower the response effect."

Data Collection

The population for this experiment was the entire eleventh grade in a large public high school in a city of 200,000 on the East Coast. The school is located in a stable, mostly white, middle- and upper-middle-class neighborhood.

The sampling units for the survey were 20 homerooms, to which students were assigned without reference to their ability; half of the homerooms were randomly selected for administration of the questionnaire at home, and the other half for school administration of the questionnaire. A total of 283 students were registered in the 10 homerooms included in the school sample, and 86 percent (244) completed the questionnaire. (Fourteen percent were absent on the day of the survey.) The home sample included 284 designated respondents. Of these, 238 (84 percent) participated in the survey.

The home interviews were conducted beginning the day after the questionnaire was administered in school and continued over a 10-day period. Interviewers contacted students at home, assured them of the confidentiality of the survey, and asked them to fill in questionnaires identical to those administered in school. They tried to keep other family members out of the "interviewing room" and succeeded in most cases. Upon completing the questionnaire, the student was asked to place it in an envelope, seal it, and return it to the interviewer.

Findings

Questions in this study which were assumed to be least salient and least threatening to adolescents measured attitudes toward social issues. Respondents were asked to agree or disagree with five statements such as, "There's something basically wrong with our society." No statistically significant differences were found in answers given at school or at home on these issues.[1]

In developing this study, it was hypothesized that students would express different attitudes toward school and their families in the face-to-face contact of the home setting and in the more impersonal school setting. It was believed that if the students had any doubts about the confidentiality of their answers, they might be reluctant to express negative answers toward school when contacted there, or toward their parents when contacted at home. No such reluctance was found (see Table 1).

On questions about grade average, number of days absent, and educational aspirations, there were no significant differences between

[1] The test of significance used was χ^2 with a minimum acceptable significance level of $< .05$.

Table 1. Selected Attitudes Reported in School and Home Settings, 1972

	School (N=244)	*Home (N=238)*	*Difference*
Attitudes toward school			
Believe that they cannot say what they think in most classes	42%	24%	18%*
Believe that they are wasting their time in school	47	34	13*
Moods			
Feel very happy	26	36	10*
Feel bored a lot of time	42	32	10*
Feel close to friends	85	91	6
Relations with parents			
Would turn to one or both parents if in serious trouble	47	53	6
Feel very close to their mothers	47	52	5
Feel very close to their fathers	37	40	3
Keep seeing their friends openly even if parents objected strongly	59	57	2
Attitudes toward deviant and illegal behavior			
Proportion answering that most of their friends wouldn't care if someone they knew . . .			
Cheated on a test	87	81	6
Got drunk	80	77	3
Took something expensive from a store	35	27	8
Tried marijuana	56	56	—
Made money from selling drugs	17	11	6
Took a drug with a needle	6	3	3
Proportion agreeing . . .			
"It's all right to smoke a little marijuana (grass) from time to time at parties"	58	54	4
"If you can't sleep, it's OK to take a sleeping pill without a doctor's prescription"	35	28	7

* $p < .01$.

NOTE: Percentages are based on the number responding to each question; this number varied by question.

answers given at school and at home. However, a significant difference does appear between answers given at home and school on two attitudinal questions about school. When answering at school, 42 percent of the students answered that they could not say what they think in most classes, whereas 24 percent expressed this opinion when interviewed at home. Similarly, 47 percent of those at school and 34 percent of those at home answered that they were wasting their time in school.

Answers to questions about mood appear related to the results of the attitudinal questions about school. Significant differences in answers given at school and at home are found in questions about feeling happy or bored. Fewer students at school than at home answered that at this time in their lives they were "very happy" (26

percent at school and 36 percent at home). Forty-two percent of those in school answered that they "feel bored a lot of time," and 32 percent of those at home reported similar feelings.

It was anticipated that more positive answers toward parents might be expressed at home than at school. However, on the five questions about relations with parents, the location of the interview did not introduce a response effect.

ATTITUDES TOWARD DEVIANT OR ILLEGAL BEHAVIOR

A series of questions measured the adolescents' perceptions of the acceptance or rejection of deviant behavior among their peers, and their attitudes toward smoking marijuana and taking sleeping pills. Three projective questions asked respondents how they thought most of their friends would feel if someone they knew got drunk, cheated on a test, or took something expensive from a store. Three other questions measured the extent of tolerance for certain behaviors related to illegal drugs, ranging from smoking a little grass at a party to taking a drug with a needle.

Results show that differences in responses given at school and at home to these questions were not statistically significant. Attitudinal questions about illegal drugs apparently were no more threatening than questions about other illegal or deviant behavior, and none of the differences in responses given at home and at school were statistically significant.

REPORTED USE OF LEGAL AND ILLEGAL DRUGS

In a series of questions on the extent of their use of legal drugs, students were asked if they took either diet pills or sleeping pills on a doctor's prescription, and if they drank alcohol or smoked cigarettes. None of the differences in reported use between school and home were statistically significant.

Questions about personal use of seven illegal drugs ranging from marijuana to heroin were considered to be the most threatening in the study and most likely to be influenced by the setting of the interview: How students answered in the two settings would test the degree to which they accepted assurances that their answers were confidential. Although students reported more use of each of the seven drugs when asked at school than at home, it is of special interest that none of the reported differences were statistically significant.

Prior to the experiment, it was thought that the presence of parents or others in the home, and especially in the room during the interview, would bias the responses toward lower reported drug use. However, those students who were interviewed while no one else was in the house reported no more drug use than those students interviewed while others were at home during the interview. In fact, the 52

students whose parents remained in the room during the interview reported just as much drug use as those who were alone in the house. From these results, it appears that the respondents believed that their answers would be held in confidence and did not feel threatened by the presence of their parents.

The relatively small difference between results obtained at school and at home raised this question: Why was there little difference between these results as compared to those obtained by Kandel (1975), who found almost no reported drug use among adolescents interviewed at home? The methods of administration in Kandel's study and the present one were the same (self-administered questionnaires) so the explanation might lie in the characteristics of the populations studied.

The populations for the two studies were very different. Kandel studied frequent absentees; 45 percent of her home sample were students who had been absent 16 or more days since the beginning of the semester compared with 14 percent of the students in this study who were interviewed at home. Kandel's students were primarily Puerto Rican and black from a poor area in New York City. Judging from a high refusal rate of 31 percent, she had a highly suspicious and possibly hostile population. On the other hand, students in this study were mostly white, middle-class youths living in a community outside New York City, whose fathers were predominantly white-collar employees. The low refusal rate (0.3 percent) indicates that they may have been less suspicious.

Special studies among frequently absent students have found that absentees report considerably more use of all types of drugs than regularly attending students (Kandel, 1975; Zanes, 1977). Data from this experiment were analyzed by self-reported number of days absent. Although the number of students in the frequently absent category (absent 16 days or more for a school term) was small, we found higher drug use among them (Table 2). However, what is more pertinent to this experiment is that a statistically significant difference in drug use by frequent absentees was reported when students answered at school rather than at home; considerably more drug use, both legal and illegal, was reported by frequent absentees on questionnaires filled in at school than at home.

Discussion

In this experiment among white middle-class students to determine if the setting influenced responses, it was found that questions which were considered a priori to be most threatening were less influenced by the setting than questions considered less threatening.

Table 2. Drug Use by Number of Days Absent Reported in School and Home Settings, 1972

	Days Absent								
	15 Days or Less			*16 Days or More*			*Total*		
	School (N=212)	*Home (N=205)*	*Difference*	*School (N=25)*	*Home (N=33)*	*Difference*	*School (N=237)*	*Home (N=238)*	*Difference*
Drink Alcohol once a week or more often	28%	26%	2%	60%	42%	18%	31%	28%	3%
Smoke cigarettes currently	28	31	−3	56	46	10	31	33	−2
Use within last 60 days									
Marijuana	36	33	3	72	58	14	40	37	3
Barbiturates	10	7	3	40	27	13	13	10	3
Amphetamines	3	2	1	28	12	16	6	3	3
LSD/psychedlics	2	1	1	20	6	14	4	2	2
Cocaine	5	1	4	20	6	14	7	2	5
Glue	3	1	2	8	—	8	3	1	2
Heroin	1	—	1	8	—	8	2	—	2
Average difference			2%			13%*			3%

* $p < .01$

NOTE: Percentages are based on the number of students responding to each question; this number varied by question.

Statistically significant differences were found in answers to questions about attitudes toward school and about respondents' mood, whereas differences in responses given at home and at school to the personal use of illegal drugs were not statistically significant.

Just why more students expressed negative attitudes about school when they were questioned in school than at home is not clear. One possible explanation is that questions about school are more salient when the youth actually are in school. Instead of the differences in results representing a response error, the differences in results may reflect the respondents' true feelings which are different in the two locations. The school setting may evoke an awareness of their attitudes toward school which they may be less conscious of when they are elsewhere. Similarly, the questions on mood may be an honest reflection of how the students feel in school in contrast to how they feel at home.

It is only among the frequently absent students that a statistically significant difference occurs in the amount of drug use reported at home and school. Perhaps students who regularly attend school feel less threatened than frequent absentees, and perhaps the white middle-class juniors in this experiment were less concerned about their anonymity than younger students of different ethnic and socioeconomic background as in Kandel's sample.

This experiment indicates that the setting may influence results in areas that had not been anticipated by the investigator, and that the response effect is closely related to the characteristics of the population under study.

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The Polls: Public Attitudes Toward the Energy Crisis

AL RICHMAN

DESPITE the gas lines and the president's warnings, most Americans remain doubtful that there is a "real" oil shortage stemming from a genuine depletion of oil resources. Their predominant view is that oil shortages have been contrived, particularly by the oil companies, to raise prices and profits. Americans believe that the oil companies and oil-producing countries could provide all the gasoline that's wanted for the near future.

As for the long term, Americans are optimistic that technology will lead us to the development of new energy sources and less dependence on foreign oil. By the year 1990, oil and gas are expected to be superseded by coal, nuclear, and solar power as leading U.S. sources of energy. By the year 2000, solar power is expected to emerge as our major source.

The public's attitudes toward nuclear power, in the wake of the Three-Mile Island accident, can be summarized as favoring (1) continued operation of existing plants while introducing stricter safety and inspection regulations as investigations show the need, and (2) postponement of new plant construction until safety issues are resolved.

The American public's attitudes toward the energy crisis are reviewed below in two sections. The first examines what the polls tell us about public perceptions of the energy problem. The second describes the public's preferences on how to deal with the energy problem, including its attitudes toward energy development and conservation policies.

Public Perceptions of the Energy Problem

Despite the recent shortages, the increased prices of gasoline, and numerous speeches by the president on the criticalness of the energy problem, the proportion of Americans in mid-1979 who believed that the energy shortage was "real"—about one-third—was actually less than the proportion who held this view after the president launched his energy program two years before.

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Public Opinion Quarterly © 1979 by The Trustees of Columbia University
Published by Elsevier North-Holland, Inc. 0033-362X/79/0043-576/$1.75

Most Americans continue to believe that oil shortages are contrived by oil companies and oil-producing countries to increase their revenues.

The public's persistent skepticism about the scarcity of oil is shown by the successive responses to these CBS/New York *Times* and Roper polls:

CBS/New York Times

Do you think the shortage of energy we hear about is real or are we just being told there are shortages so oil and gas companies can charge higher prices? (July 1977–April 1978)

Do you think the shortage of oil we hear about is real or are we just being told there are shortages so oil companies can charge higher prices? (March 1979)

Do you think the shortage of oil we hear about is real, or are we just being told there are shortages? (June 1979–July 1979)

	Real	*Just Being Told*	*No Opinion*
1977: July 27–31	38%	49%	13%
Oct 23–26	42	51	7
1978: Jan 8–12	43	47	10
Apr 3–7	42	50	8
1979: Mar 26–27	20	69	11
June 3–6	30	62	8
July 9–11	26	66	8
July 16	35	53	12

President Carter has told us that we are running out of oil. Do you think things are as bad as the president said, or do you think things are not as bad as all that? [For July 1977 and April 1979 polls question reads ". . . oil and natural gas . . ."]

	As Bad	*Not As Bad*	*No Opinion*
1977: July 27–31	33%	57%	10%
1979: Apr 5–7	32	57	11
June 3–6	25	69	6

Roper

Some people say there is a real shortage of gasoline and fuel oil because demand has outrun the supply. Others say there really isn't a shortage of gasoline and fuel oil and the big companies are holding it back for their own advantage. What do you think—that there is or is not a real shortage of gasoline and oil?

	Real Shortage	*Not a Real Shortage*	*Don't Know*
1974: Feb	18%	73%	9%
1979: June 2–9	20	71	9
July 7–14	24	68	8
Aug 18–25	27	65	8

Here is a list of statements about the gasoline and oil shortage [respondent given card]. Which *one* of those statements comes closest to expressing your opinion?

A. There is a very real shortage and the problem will get worse during the next 5 to 10 years.

B. There is a real oil shortage but it will be solved in the next year or two.

C. There was a short-term problem, but it has been largely solved and there is no real problem any longer.

D. There never was any real oil shortage—it was contrived for economical and political reasons.

	Statements				*Don't*
	A	*B*	*C*	*D*	*Know*
1974: May	21%	12%	8%	53%	6%
1976: May 8–15	25	9	9	48	9
Nov 6–11	26	11	8	46	9
1977: Apr 30–May 7	40	15	6	33	6
Oct 29–Nov 5	33	14	9	39	5
1978: Apr 22–May 3	32	8	9	45	6
Oct 28–Nov 4	31	10	9	43	7
1979: Jan 6–20	29	8	8	48	7
Apr 28–May 5	25	12	6	51	6
Sep 22–29	28	9	7	51	5

Public concern about world oil scarcity and U.S. dependence on foreign oil has lessened, even as concern about short-term energy shortages has increased. Roper found that the proportion who believed "the world's supply of oil" would last 100 years or more nearly doubled between early 1977 and early 1979 (from 22 to 40 percent), while the proportion who expected the world's oil supply to be depleted within 25 years fell from 24 percent to 15 percent.

Despite the president's warnings about excessive U.S. reliance on foreign oil, public concern about the degree of U.S. dependence on oil imports declined between 1977 and 1979. The proportion who believed that the United States was importing 35 percent or more of the oil it consumes dropped between early 1977 and early 1979 (from 56 percent to 43 percent), while the proportion who believed that the U.S. was importing less than 35 percent of its oil rose sharply (from 24 percent to 41 percent).

An early 1979 Roper poll found that only about one-fourth of the general public had an even roughly accurate perception that "between 35 and 49 percent" of the oil used in the United States is imported. Even among the college-educated, executives/professionals, and those earning $25,000 or more annually only about one-third were aware of the extent of U.S. oil dependence.

The public also has become considerably more optimistic since 1977 about the possibility of ending U.S. dependence on foreign oil. The proportion who said the U.S. could "get along without" importing foreign oil during the next five years by better conservation and development of new energy sources increased from 37 percent in mid-1977 to 50 percent in mid-1979.

Only about one-fifth of the public was convinced both about U.S. oil dependence and a worldwide oil scarcity, according to a Roper survey conducted in March 1979. Nearly twice as many were optimistic about supplies, believing these were adequate worldwide for at least another 50 years and that the United States itself could become self-sufficient in oil.

Roper

About how long do you think the world's supply of oil is likely to last—5 years, or 25 years, or 50 years, or 100 years, or 200 years, or what?

Number of Years	*Mar 1979*		*Feb 1977*	
5	2%	15%	4%	24%
25	13		20	
50	13		15	
75	3		3	
100	15	40	10	33
150	3		1	
200	9		4	
Longer than 200 years (Volunteered)	13		7	
Don't know	29		35	

At the present time, how much of the oil used in the United States would you say we have to import from other countries? [Respondent shown card with choices ranging from "less than 10 percent" to "50 percent or more."]

	Jan 1979		*Jan 1978*		*Jan 1977*	
Less than 10%	5%	41%	3%	28%	2%	24%
10 to 24%	14		9		7	
25 to 34%	22		16		15	
35 to 49%	23	43	27	57	29	56
50% or more	20		30		27	
Don't know	17		16		21	

How do you feel about our dependency on foreign oil during the next five years—do you think we could get along without it by conservation and use of other energy sources, or that we cannot get along without importing foreign oil?

	Can Get Along Without Foreign Oil	*Cannot Get Along Without It*	*Don't Know*
1975: Apr 5–12	50%	35%	15%
1976: Mar 20–27	37	48	15
1977: Mar 19–26	38	50	12
June 4–11	37	53	10
1978: Mar 18–25	38	48	14
1979: Mar 24–31	41	49	10
Apr 28–May 5	50	42	8

Gallup

From what you have heard or read, do you think we produce enough oil in this country to meet our present energy needs, or do we have to import some oil from other countries? [For April 1978 poll questions reads "import oil . . ."]

	Produce Enough	*Must Import*	*Don't Know*
1977: Apr 29–May 1	33%	52%	15%
1978: Apr 14–17	27	60	13
1979: Apr 27–May 4	38	46	16

CBS/New York Times

Do you think the United States has to import oil to meet our needs, or do we produce as much oil as we need?

	Produce What We Need	*Must Import*	*No Opinion*
1979: June 3–6	36%	51%	13%

Numerous surveys show the public has usually ranked oil companies as the foremost cause of energy shortages. But also receiving considerable blame have been the oil-producing countries, President Carter, the Congress, and wasteful American consumption habits.

Analysis of a June 1979 CBS/*Times* poll showed that those Americans who believed there was a real scarcity of oil attributed it mainly to Americans' wasteful consumption of energy. In contrast, those who viewed the oil shortage as contrived placed most blame on American oil companies. The president received more blame from those who believed the oil shortage was contrived than from those who said it was "real."

CBS/New York Times

We are interested in who or what is to blame for the oil shortage we hear about. Would you place a lot of the blame or not much for the problem on . . . [For July 1977 poll question reads ". . . we are interested in who or what is responsible for the energy problem we are facing. Would you place a lot of the blame or not much for the energy problem on . . ."]

	Percent "A Lot" of Blame		
	July 9–11	*June 3–6*	*July 19–25*
	1979	*1979*	*1977*
American oil companies	65%	69%	57%
Middle East oil-producing countries	56	47	44
Waste by people like yourself	—	58	62
The president (Jul 1977: President Carter)	35	33	19
Congress	—	59	51

Roper

Here is a list of groups who have been mentioned in one way or another as being to blame for the current energy crisis here in the United States. [Respondent handed card.] Would you go down that list and for each one tell me whether you think they deserve major blame for the energy crisis, some blame, or no blame at all?

	Percent "Major" Blame				
	June	*June*	*Jan*	*Feb*	*Jan*
	1979	*1977*	*1976*	*1975*	*1974*
The oil companies	72%	55%	57%	57%	56%
The Arab countries	51	32	37	38	22
The Administration	36	24	28	28	39
The Congress	34	28	26	26	26
The electric power companies	25	31	29	26	15
American consumers	23	31	18	20	18
Israel	17	10	13	10	11
The environmentalists	15	13	9	11	10

In their poll of July 9–11, 1979, CBS/*Times* asked their respondents about difficulties in obtaining gasoline. One-third reported that, during the previous month, they had experienced either long lines or trouble finding gas stations open. The table below shows that those who had difficulties in getting gasoline were less convinced the energy shortage was "real" than those who had no difficulty. However, those who had difficulty in obtaining gasoline were more likely to blame the president for the scarcity than those who had no difficulty.

	Experience in Getting Gasoline	
	Difficulty (34% of public)	*No Difficulty (55% of public)*
Belief about oil shortage		
Real	24%	29%
Not real	70	62
No opinion	6	9
Blame president for shortage		
A lot	41%	30%
Not much	53	63
No opinion	6	7

Public Preferences About How to Deal With the Energy Problem

Public disbelief that the U.S. faces a severe energy shortage rests, in part, on its firm belief that American know-how will provide alternative energy sources within a decade.

The public expects oil and gas to be superseded by coal, nuclear, and solar power as leading U.S. sources of energy within 10 years. This helps explain why the public is relatively unworried about a long-term scarcity of oil and gas supplies. Since the public expects reliance on oil and gas to decline rapidly, it is optimistic that our reserves of oil and gas are adequate to last well into the next century.

An April Harris poll found that the public expects: (1) coal will become the chief U.S. energy source in the early 1980s; (2) nuclear and solar power will subsequently replace coal, becoming the two leading energy sources in the late 1980s; and (3) solar power will emerge as the primary source of U.S. energy by the year 2000.

Harris (Mar 24–Apr 2, 1979)

Generally speaking, how optimistic are you about the ability of this country to solve the energy problem by technological discoveries and developments—very optimistic, somewhat optimistic, or not optimistic at all?

Very optimistic	43%	86%
Somewhat optimistic	43	
Not optimistic at all	7	
Not sure	7	

Harris (April 6–9, 1979)

Now let me ask you about different kinds of energy—oil, coal, nuclear power, solar energy, hydroelectric power, and natural gas. Which one of these fuels do you think will supply most of our electrical energy needs this year, in 2–5 years, in 6–10 years, in 11–15 years. . . ?

	Main U. S. Energy Source					
	This Year	*2–5 Years*	*6–10 Years*	*11–15 Years*	*16–20 Years*	*More than 20 Years*
Oil	33%	17%	7%	3%	3%	3%
Natural gas	22	12	7	5	4	4
Coal	18	23	16	14	11	8
Nuclear power	9	18	29	29	29	27
Solar energy	5	17	25	27	29	32
Hydroelectric power	7	6	4	4	3	3
Not sure	6	7	12	18	21	23
	100%	100%	100%	100%	100%	100%

Roper

Which of these energy sources do you think are realistically possible to use for replacing foreign oil during the next five years? (Respondent handed card.)

Looking ahead to the year 2000, which of those sources do you think offers the best long-term source of energy—which one or two do you think we should spend the greatest effort on to develop?

	Best Alternative Energy Sources (Multiple Responses)				
	Short-Term			*Long-Term*	
	May 1979	*Mar 1979*	*Mar 1977*	*Mar 1979*	*Mar 1977*
Coal	60%	68%	61%	26%	18%
Solar energy	53	65	52	68	67
Nuclear energy	35	50	36	37	35
Oil from offshore U. S. oil wells	35	51	42	14	12
Oil extracted from shale	20	25	16	4	3
Water power from dams on rivers	26	37	26	11	7
Wind power	17	22	16	6	8
Energy from ocean tides	10	15	9	7	6
None of these (Volunteered)	1	1	1	—	—
Don't know	5	5	6	5	7
	262%	339%	265%	178%	163%

Harris surveys found that the proportion of Americans who preferred to cope with the energy problem by increasing domestic production rose substantially between mid-1977 and late 1978, and—on the latest reading—outnumbered those who favored conservation approaches by nearly two to one.

Harris

If you had to choose, which do you think should have the primary emphasis in dealing with the energy problem in this country—going all out to cut back the use of energy in the U.S. or going all out to increase the production of energy in the U.S.?

Preferred Policy	*Dec 1978*	*Mar 1978*	*May 1977*
Increase energy production	57%	46%	41%
Conserve energy use	30	26	32
Both (Volunteered)	10	24	23
Not sure	3	4	4

A Roper survey in late March asked respondents whether they favored or opposed a number of specific energy production and conservation policies. Roper found that majorities of Americans favored most steps to accelerate development of energy sources (e.g., solar energy—85 percent favored, offshore oil exploration—80 percent, nuclear energy—57 percent), but majorities opposed most measures to conserve energy (e.g., penalty taxes on appliances using large amounts of electricity—75 percent opposed, substantially higher prices for peak-time energy use—68 percent, oil and gas rationing—59 percent).

The public seems to be more concerned about the price of oil than about its long-term availability. In March, Roper found that the public overwhelmingly opposed the idea of permitting oil and gas prices to rise in order to encourage development of additional supplies (by 76 percent to 16 percent). In late April, NBC found that the public clearly opposed "lifting price controls on crude oil" (37 percent in favor vs. 50 percent opposed), but overwhelmingly favored a "new tax to keep oil companies from reaping so-called windfall profits after the removal of oil price controls" (66 percent in favor vs. 24 percent opposed).

The public's opposition to decontrol of oil prices is enhanced by doubts that higher prices for oil would induce the oil companies to find more of it. CBS/*Times* asked this question April 5–7:

If prices for oil are increased, do you think it's likely that oil companies will put much more effort in trying to discover more oil, or will they continue to do what they are doing now?"

Same effort to discover oil	56%
Greater effort	32
No opinion	12

Willingness to follow the president's lead on the energy problem depends, to a considerable extent, on acceptance that a real scarcity of oil exists, relative to worldwide demand. In the CBS/*Times* poll of July 16, 1979, a majority, albeit small, of those who said the oil shortage was "real" approved of the president's "handling of the energy problem" (by 51 percent to 37 percent). But among those who felt the shortage was fabricated, a majority of nearly three to one disapproved (by 60 percent to 22 percent).

The immediate effect of the Three-Mile Island accident was to heighten the public's doubts about U.S. reliance on nuclear power. A Gallup survey in early April 1979, found that a majority of Americans (72 percent) believed similar nuclear plant accidents were likely to occur in other nuclear plants. At

the same time, a CBS/*Times* poll found that 36 percent of the public feared such an accident could lead to a Hiroshima-type atomic explosion.

Public support for building additional nuclear power plants declined sharply immediately after the Three-Mile Island accident and has only partially recovered. In October 1978, Harris found nearly a two-to-one majority favored constructing new nuclear plants in the U.S. (57 percent favored vs. 31 percent opposed). In early April 1979, two weeks after the accident, the public was about evenly divided (44 percent vs. 43 percent). By mid-May, support for building new plants had recovered slightly (52 percent vs. 42 percent).

Harris found support for constructing new nuclear plants was much greater under the conditions that the government regularly inspect them and assure that an accident was "unlikely to happen" (58 percent approved vs. 36 percent disapproved on Harris's April 6–9 survey).

The public's concern for personal safety was even more evident in the sizeable and growing opposition to having a nuclear power plant built near one's own community. In early April 1979, Gallup found that the public opposed constructing a nearby nuclear plant by nearly two to one, compared to mid-1976, when the public was almost evenly divided on this issue.

However, the public's concern about energy prices and shortages has predominated when the issue shifted to closing existing plants. A Gallup poll in early May 1979, found a clear majority of the public believed that closing nuclear plants presented a "greater risk to the nation" than keeping them open (by 56 percent to 31 percent).

Harris polls in April and May 1979 showed that the public overwhelmingly opposed the "permanent" closing of all nuclear power plants (by 79 percent to 15 percent in May). A clear majority (54 percent to 43 percent) also opposed closing all plants pending completion of investigations into their safety hazards. (However, responses may be influenced by the fact that most people do not have an existing nuclear plant near their home.)

Although the public does not approve "closing" all nuclear plants, it has favored "cutting back" their operations, as necessary, until stricter safety regulations are introduced (by 66 percent to 24 percent), according to Gallup's April 1979 poll.

Harris

In general, do you favor or oppose the building of more nuclear power plants in the United States?

	Favor	*Oppose*	*Don't Know*
1975: Mar	63%	19%	18%
1976: July	61	22	17
1978: Mar 24–Apr 2	55	25	20
Sept 24–Oct 4	57	31	12
1979: Apr 4–5	52	42	6
Apr 6–9 (Telephone survey)	47	45	8
Apr 6–15 (Personal interviews)	44	43	13
May 18–22	52	42	6

CBS/New York Times

Would you approve or disapprove of building more nuclear power plants to generate electricity?

Would you approve or disapprove if the nuclear plants for generating electricity are built in your community?

	Nuclear Plants in United States			*Nuclear Plants in Own Community*		
	Approve	*Dis-approve*	*No Opinion*	*Approve*	*Dis-approve*	*No Opinion*
1977: July 27–31	69%	21%	10%	55%	33%	12%
1979: Apr 5–7	46	41	13	38	56	6

Gallup

As of today, how do you feel about the construction of a nuclear power plant in this area—that is, within five miles of here? Would you be against the construction of such a plant in your area, or not?

Nuclear Plant in Own Area	*April 6–9 1979*	*June 11–14 1976*
Would be against	62%	45%
Would not be against	33	42
No opinion	5	13

Harris

Considering the accident in that Pennsylvania nuclear power plant, do you approve or disapprove of the following policies?

	May 18–22, 1979			*Apr 6–9, 1979*		
	Dis-approve	*Ap-prove*	*Not Sure*	*Dis-approve*	*Ap-prove*	*Not Sure*
All nuclear power plants should be shut down permanently and no more should be allowed to be built.	79%	15%	6%	80%	15%	5%
All nuclear power plants in the country should be closed down until the Federal Government knows more about the safety risks involved in them.	54	43	3	57	40	3

Gallup (April 6–9, 1979)

Do you feel that nuclear power plants operating today are safe enough with present safety regulations, or do you feel that their operations should be cut back until more strict regulations can be put into practice?

Cut back operations	66%
Plants now safe enough	24
No opinion	10